

CORDEYEV, A.S., prof. doktor tekhn. nauk; YUSHKO, V.I., kand. tekhn. nauk;
MITSKEVICH, V.G., inzh.

Modeling of the switching process in the reversing gear of
hydraulic drives of diesel locomotives. Trudy MIIT no.195:
156-164 '64. (MIRA 18:9)

GORDEYEV, A.S., kand.tekhn.nauk; YUSHKO, V.I., inzh.

Investigating the single-flow hydrodynamic transmission with a
synchronizing hydraulic clutch. Trudy MIIT no.175:59-72 '63.
(MIRA 16:12)

YUSHKO, V.I., inzh.

Movement of cam clutches and the dynamic loads in the elements of
the gearbox of single-flow hydrodynamic transmissions. Trudy MIIT
no.175:73-85 '63. (MIRA 16:12)

YUSHKO, V.I., inzh.

Studying the shift process of the reversing gear of the hydro-
dynamic drive of diesel locomotives. Trudy MIIT no.173:34-50
'63. (MIRA 17:9)

BAYKOV, B.K.; MELKHINA, V.P.; Prinimali uchastiye: VASIL'YEV, A.S.;
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L.N.; YUSHKO, Ya.K.; CHUMAK, K.I.; GUSEL'NIKOVA, E.L.; KETOVA, O.N.

Hygienic characteristics of air pollution in Gubakha and its effect
on health of the population. Uch. zap. Mosk. nauch.-issl. inst. san.
i gig. no.6:21-25 '60. (MIRA 14:11)

(NIZHNYAYA GUBAKHA—AIR—POLLUTION)

DUBROVSKAYA, F.I.; KATSENELEBAUM, M.S.; YUSHKO, Ya.K.; BULYCHEV, G.V.;
KOROLEVA, V.A.

Air pollution with wastes from synthetic fatty acids and alcohols
and their effect on public health. Gig.1 san. 26 no.12:3-8 D '61.
(MIRA 15:9)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny
imeni F.F.Erismana.

(SHEBEKINO--AIR POLLUTION)

DUBROVSKAYA, F.I.; DYUZHEVA, Yu.V.; KATSENELENEBAUM, M.S.; YUSHKO, Ya.K.;
KOROLEVA, V.A.; BULICHEV, G.V.

Discharge into the atmosphere of wastes from the production of
synthetic fatty acids and their effect on public health. Uch.
zap. Mosk. nauch.-issl. inst. san. i gig. no.9:63-66 '61
(MIRA 16:11)

*

YEFIMOV, N.A.; VASIL'YEV, A.S.; YUSHKO, Ya.K.; KOMAROVA, A.A.; KUBLANOVA, P.S.;
ZHIGULINA, L.A.; YUSHKEVICH, L.B.; BULYCHEV, G.V.

Effect of wastes of a metallurgical plant on the health of
the population. Uch.zap. Mosk. nauch.-issl.inst. san. i gig.
no.9:73-76 '61 (MIRA 16:11)

*

YUSHKO-ZAKHAROVA, O. Ye.

31

PHASE I BOOK EXPLOREATION

EC7/5740

Akademiya nauk SSSR. Institut mineralogii, geokhimi i kristalloghimi redkikh elementov

Voprosy mineralogii, geokhimi i genezisa nastorozhdeniy redkikh elementov
(Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements)
Moscow, Izd-vo AN SSSR, 1960. 253 p. (Series: Its: Trudy, vyp. 4) Errata
printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR;
Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. S. Tarasov;
Tech. Ed.: P. B. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 23 articles on the formation, geology,
mineralogy, petrography, and geochemistry of deposits of rare elements in
Siberia and [Soviet] Central Asia. The distribution and characteristics of
rare elements found in these areas as well as some quantitative and qualitat-
ive methods of investigating the rocks and minerals in which they are found,

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Problems in Mineralogy (Cont.)

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or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

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AVAILABLE: Library of Congress

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JA/007/000
11-14-61

YUSHKO-ZAKHAROVA, G.Ye.; DUROVA, Z.N.

Selenium and tellurium in copper-nickel deposits of the Kola
Peninsula. Trudy Inst. min., geokhim. i kristalloghim. red. elem.
no. 3:61-68 '59. (MIRA 14:5)
(Kola Peninsula—Selenium) (Kola Peninsula—Tellurium)

YUSHKO-ZAKHAROVA, O.Ye.

Typomorphic mineral associations in copper-nickel deposits of
the Monchegorsk region and the place of selenium and tellurium
in the general plan of ore formation. Trudy IMGRE no.5:126-135
'61. (MIRA 15:7)
(Monchegorsk region—Ore deposits)

S/2677/63/000/010/0100/0124

ACCESSION NR: AT4028287

AUTHOR: Yushko-Zakharova, O. Ye.

TITLE: Geochemistry of selenium and tellurium in copper-nickel deposits

SOURCE: AN SSSR. Institut mineralogi, geokhimii i kristalloghimii redkikh elementov. Trudy*, no. 10, 1963. Redkiye elementy v sul'fidnykh mestorozhdeniyakh (Rare-earth elements in sulfide deposits), 100-124.

TOPIC TAGS: geology, mineralogy, geochemistry, copper, nickel, selenium, mineral deposit

ABSTRACT: This review article provides a great deal of information on the geochemical properties of selenium and tellurium, the patterns of distribution of selenium and tellurium in copper-nickel ores, the isomorphism of selenium and tellurium in the mineral carriers of these elements, the influence of change of the physicochemical conditions of mineral formation on the behavior of selenium and tellurium in the ore-forming process and the occurrence of selenium and tellurium in certain deposits in the USSR. The text is essentially an elaboration and interpretation of the tables, whose titles are indicative of the scope and content of the review: 1 -- Certain physical constants of sulfur, selenium and tellurium; 2 -- Certain properties of H_2S , H_2Se and H_2Te ; 3 -- Mean content of S, Se, Te, Cu

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APPROVED

ACCESSION NR: AT4028287

and Ni for various rocks; 4 -- Content of Se, Te and S in the igneous rocks of the Monchegorsk intrusion; 5 -- Content of Se and Te in copper-nickel deposits; 6 -- Mean Se:Te ratio for different types of ores; 7 -- Content of Se and Te in sulfides from various types of Monchegorsk ores; 8 -- Approximate content of S, Se, Te and their ratios in the ores of the Kola Peninsula; 9 -- Approximate contents of S, Se and Te and their ratios in the ores of the Noril'sk deposit; 10 -- Mean content of selenium and tellurium in various minerals of copper-nickel ores; 11 -- Mean ratios of Se and Te in various minerals of copper-nickel ores; 12 -- $S_{32}:S_{34}$ ratios in minerals and concentration of selenium and tellurium; 13 -- Content of S, Te and S and S:Se and S:Te ratios in chalcopyrite, pentlandite and pyrrhotite from Pechenga deposits; 14 -- Se and Te content in sulfides of various deposits; 15 -- Mean content of Se and Te in bornite and late chalcopyrite of the Noril'sk deposit. Orig. art. has: 5 figures and 15 tables.

ASSOCIATION: Institut mineralogii, geokhimii i kristalloghimii redkikh elementov (Institute of Mineralogy, Geochemistry and Crystallochemistry of Rare Elements)

SUBMITTED: 00

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Card 2/2

YUSHKO-ZAKHAROVA, Oksana Yevgen'yevna; SINDEYEVA, N.D., otv. rec.;

[Geochemistry and mineralogy of selenium and tellurium in
copper-nickel deposits] Geokhimiia i mineralogiia selena i
tellura v medno-nikelevykh mestorozhdeniakh. Moskva, Izd-
vo "Nauka," 1964. 110 p.
(MIRA 17:6)

YUSHKO-ZAKHAROVA, O.Ye.

Nickel telluride, a new mineral. Dokl. AN SSSR 154 no. 3:
613-614 Ja '64. (MIRA 17:5)

1. Institut mineralogii, geokhimii i kristalloghimii redkikh
elementov. Predstavleno akademikom V.I.Smirnovym.

YUSHKOV, A.

Good adviser ("Social insurance manuals; commentary on legislation in effect." Reviewed by A. Iushkov). Okhr. truda i sots. strakh. 4 no. 2:56-57 F '61.
(MIRA 14:2)

1. Zaveduyushchiy otделom sotsial'nogo strakhovaniya Moskovskogo oblastnogo soveta profsoyuzov.
(Insurance, Social)

YUSHKOV, A.

Urgent problem. Okhr. truda i sots. strakh. 5 no.8:30 Az '62.
(MIRA 15:7)
1. Zaveduyushchiy otделom sotsial'nogo strakhovaniya Moskovskogo
oblastnogo soveta profsoyuzov.
(MOSCOW PROVINCE—MEDICINE, INDUSTRIA2)

LIKHOED, V.Ya.; URZHUMOV, A.I.; YUSHKOV, A.S.

Unit for the automatic telemetering of drilling operations and
their dispatcher control. Razved. i okh. nedr 29 no.10:21-24
0 '63. (MIPA 17:12)

1. Vostochno-Kazakhstanskoye geologicheskoye upravleniye.

KAZANTSEV, M.I.; YUSHKOV, A.S.

Attachment to the K-5 coroscope for recovering oriented cores
in vertical holes. Razved. i okh. nedr 30 no.7:50-51 J1 '64.
(MIRA 17:12)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya Ministerstva geologii i okhrany nedr KazSSR.

YUSHKOV, A.S., aspirant

Effect of the sensitivity of instruments on the accuracy of
installation of deflectors for artificial deviation of bore-
holes. Izv. vys. ucheb. zav.; geol. i razv. 8 no. 12:113-119
D '65 (MIRA 19:1)

1. Tomskiy politekhnicheskii institut.

YERMAKOV, A. V.

The work of an annealer of non-ferrous metals in flame furnaces Moskva, Metallurgizdat, 1944. 94 p. (V pomoshch' rabochim massovykh professii)

Cyr. 4 TN2

1. Non-ferrous metals - Metallurgy.

YUSHKOV, AV
YUSHKOV, A.V., kandidat tekhnicheskikh nauk; BOGDANOV, Ye.S.

Profile of the drawhole. Izv. AN ESSR no.1:185-196 Ja-P'51.
(Drawing (Metalwork)) (MIRA 8:10)

Yushkov A.V.
BOGDANOV, Ye. S.; YUSHKOV, A.V.

Speed of deformation in the various processes of plastic deformation. Izv.AN BSSR, no.3:141-154 My-Je '53. (MIRA 9:1)
(Deformations (Mechanics))

GUBKIN, S.I.; YUSHKOV, A.V.; STRUKOV, N.A.

Changes in mechanical properties and plasticity of 40KhM and
40Kh steels. Sbor.nauch.trud.Fiz.-tekh.inst.AN BSSR no.1:26-
38 '54. (MIRA 10:1)
(Steel alloys---testing) (Metals, Effect of temperature on)

YUSHKOV, A.V.
GUBKIN, S.I.; YUSHKOV, A.V.; RUDENOK, P.P.

Deformability of gray and malleable cast iron. Sbor.nauch.trud.
Fiz.-tekh.inst. AN BSSR no.2:3-15 '55. (MIRA 10:1)
(Deformations (Mechanics)) (Cast iron--Testing)

YUSHKOV, A.V.
GUBKIN, S.I.; YUSHKOV, A.V.; DOBROVOL'SKIY, S.I.

Clarifying the causes of metal exfoliation (in the area of bridge
projections) in volume die forging. Sbor.nauch.trud. Fiz.-tekhn.inst.
AN BSSR no.2:16-22 '55. (MIRA 10:1)
(Strains and stresses) (Forging)

AKIMOVA, K.I.; BAZHENOV, M.F.; BAKHVALOV, G.T.; BEZKLIBENKO, N.P.; BERMAN, S.I.;
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 SHPICHINETSKIY, Ye.S.; YURKSHTOVICH, N.A.; YUSHKOV, A.V.;
 YANUSHEVICH, L.V.

Sergei Ivanovich Gubkin. TSvet.met. 28 no.6:60-61 N-D '55. (MIRA 10:11)
 (Gubkin, Sergei Ivanovich, 1898-1955)

SOV/137-57-10-19104

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 97 (USSR)

AUTHOR: Yushkov, A.V.

TITLE: Resistance to Deformation Under Impact Loads (Soprotivleniye deformirovaniyu pri udarnom nagruzhении)

PERIODICAL: Sb. nauchn. tr. fiz.-tekhn. in-t AN BSSR, 1956, Nr 3, pp 78-86

ABSTRACT: A description is offered of equipment for, and the results of investigation of the upsetting of copper and steel specimens on a vertical impact-testing machine. Resistance to deformation is determined by graphical differentiation of the experimental curves.

Ya.O.

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SOV/137-57-10-19120

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 98 (USSR)

AUTHORS: Muras, V.S., Yushkov, A.V.

TITLE: Drop-forging a Bending Rod With Electrolytic Heating (Shtampovka izgibayushchegosya sterzhnya s elektrolitnym nagrevom)

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1956, Nr 3, pp 105-113

ABSTRACT: An investigation is performed showing the possibility of upsetting (U) rods in which the ratio of the length of the upset portion to billet diameter is >2.4 , thus making it possible to reduce the number of passes in press forging. Important factors in reducing the number of passes are elimination of the practice of heating too long a portion of the billet and use of one-shot U of the billet in faceted dies. The design of a die for U long forgings on a short-stroke crank press is presented.

M. Ts.

Card 1/1

SOV/137-57-10-19154

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 102 (USSR)

AUTHORS: Dovnar, S.A., Nichiporovich, F.V., Yushkov, A.V.

TITLE: On the Thermal Conductivity of Die Lubricants (K voprosy termicheskoy provodimosti shtampovykh smazok)

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1956, Nr 3, pp 137-144

ABSTRACT: A description of a laboratory installation is provided, and of experiments to investigate heat exchange upon contact between a heading tool and the specimen with various types of lubricants. Heat exchange was judged by the change in the temperature of a Cu heading tool in the upsetting of specimens of Cu heated to 780° and 920°C. Various thicknesses of lubricant - borax, NaCl, water-glass, and mica - were applied to the specimen before heating, and heavy oil before deformation. Mica displayed the least heat exchange, with NaCl and borax following in order. The thermal properties of the lubricant depend to a considerable degree upon its physicochemical properties. The amount of heat going into the heading tool at a specimen temperature of 920° is less than at 780°. This is explained

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/ On the Thermal Conductivity of Die Lubricants

by the reduction in the unit pressure required for metal flow as temperature rises.

SOV/137-57-10-19154

M.Ts.

137-58-4-7121

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 116 (USSR)

AUTHOR: Yushkov, A. V.

TITLE: Problems in the Field of Drop Forging (Zadachi v oblasti goryachey shtampovki)

PERIODICAL: V sb.: Materialy konferentsii po usoversh. tekhnol. goryachey shtampovki. Minsk, AN BSSR, 1957, pp 3-11

ABSTRACT: A review of a number of drop-forging problems: economy, accuracy, heating, and also theoretical propositions. The fact that the process of precision forming of small forgings has received inadequate attention is noted.

1. Forging--Theory 2. Forging--Economic aspects

R. P.

Card 1/1

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 11, p 84 (USSR) SOV/137-58-11-22425

AUTHOR: Yushkov, A. V.

TITLE: A Kinematic Method of Determining the Forces Arising in Dynamic Upsetting in a Vertical Impact-testing Machine (Kinematicheskiy metod opredeleniya usiliy pri dinamicheskom osazhivanii na vertikal'nom kopre)

PERIODICAL: V sb.: Materialy konferentsii po usoversh. tekhnol. goryachey shtampovki. Minsk, AN BSSR, 1957, pp 19-30

ABSTRACT: A presentation is made of work in developing relatively simple kinematic methods of recording upsetting (U) curves in deformation by impact. An optical device mounted on the vertical impact-testing machine is used to record the U curve on photographic film or paper within coordinates for absolute reduction versus time. Graphic differentiation of the U curve plotted on an enlarged scale by means of the tool microscope serves to obtain the speed and acceleration of motion of the striker. The deformation force generated in the specimen is equated to the impact force exerted by the striker. Knowing the deformation force in each point of U and the

Card 1/2

A Kinematic Method of Determining the Forces Arising (cont.) SOV/137-58-11-22425

cross-sectional area of the specimen (the volume of the specimen is given, and the instantaneous height is derived from the U curve) it is possible to plot a graph for resistance to deformation (D) relative to degree of D. As the rate of motion of the striker along the entire path of U is known, the U velocity may also be determined. Graphs of D resistance for ShKh-15 steel on impact U as a function of the level of D for temperatures from 700 to 1200°C and of Cu at 20° are presented.

V. O.

Card 2/2

SOV/137-58-11-22426

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 84 (USSR)

AUTHORS: Yushkov, A. V., Bogdanov, Ye. S.

TITLE: Rate of Deformation on Upsetting by Impact (Skorost' deformatsii pri udarnom osazhivanii)

PERIODICAL: V sb.: Materialy konferentsii po usoversh. tekhnol. goryachey shtampovki, Minsk, AN BSSR, 1957, pp 44-51

ABSTRACT: More precise light is shed on rate of deformation (RD) when forces are applied by impact. An analysis is presented of the processes of change in RD by free impact. It is pointed out that in order for the results of testing in hot forging to be comparable, it is necessary to determine the characteristic RD values, initial, maximum, and mean. A velocity coefficient for determination of forging stress can then be determined with greater accuracy. Formulas are suggested for determining maximum and average RD. It is shown that the RD is at a maximum at the onset of the process if the strain is less than 0.5, and when the height of the upset specimen is $1.65 h_n$ (h_n being the height of the sample at the terminal instant of the process) if the strain is over 0.5. The results of the experiments conducted

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SOV/137-58-11-22426

Rate of Deformation on Upsetting by Impact

show these equations to reflect the actual course of the process with adequate accuracy.

V. O.

Card 2/2

YUSHKOV, A-V.

PHASE I BOOK EXPLOITATION

1133

Akademiya nauk Belorusskoy SSR. Fiziko-tekhnicheskiy institut

Sbornik nauchnykh trudov, vyp. IV (Collection of Scientific Papers, v. 4)
Minsk, Izd-vo AN BSSR, 1958. 261 p. 1,150 copies printed.

Ed.: Mariks, L.; Tech. Ed.: Bolokhanovich, I.; Editorial Board:
Sverdenko, V.P. (Chief Ed.); Gorev, K.V.; Sirota, N.N., Bodyako, M.N.,
Parkhutik, P.A.

PURPOSE: This book is intended for metallurgical engineers and metallurgists.

COVERAGE: The scientific papers included in this volume deal with various
- problems in metallography, forming of metals, heat treatment, electro-
-erosion, and the physics of metals. No personalities are mentioned.

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Romashkin, Yu. P., Aspirant, Leningrad Physico-Technical Institute, Academy of Sciences, USSR. Letter to the Editors on S.A. Dovnar's Article, "Calculation of the Rate of Diffusion in a Body Undergoing Plastic Deformation" [appearing in vol. 1, 1954, of the present series]

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Dovnar, S.A. Diffusion in Alpha Iron During Plastic Deformation (Reply to Yu. P. Romashkin's letter to the editors)

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AVAILABLE: Library of Congress

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GO/lsb
2-19-59

SEVERDENKO, V.P., akademik, red.; KALACHEV, M.I., red.; YUSHKOV, A.V.,
red.; VOLK, A.A., red.; GURVICH, G.Ye., tekhred.

[Papers of the Conference on the Improvement of the Technology
of the Working of Metals under Pressure] Materialy Konferentsii
po usovershenstvovaniyu tekhnologii obrabotki metallov davleniem.
Minsk, Izd-vo Belgosuniv. im. V.I. Lenina, 1958. 111 p.

(MIRA 12:6)

1. Konferentsiya po usovershenstvovaniyu tekhnologii obrabotki
metallov davleniyem.

(Metalwork--Congresses)

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 227 (USSR) SOV/137-59-1-1719

AUTHOR: Yushkov, A. V.

TITLE: Some Trends in the Development of Hot Forming
(Nekotoryye napravleniya v razvitii goryachey shtampovki)

PERIODICAL: V sb.: Materialy Konferentsii po usoversh. tekhnol. obrabotki
metallov davleniyem. Minsk, Belorussk. un-t, 1958, pp 9-16

ABSTRACT: The author examines improvements relating to the preheating of forgings and stamping blanks on hammers and presses, also measures taken to improve the durability of forging dies, the modernization of the forging machinery, and the mechanization and automatization of the various hot-forming processes.

Ye. L.

Card 1/1

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 217 (USSR) SOV/137-59-1-1642

AUTHOR: Yushkov, A. V.

TITLE: On the Effect of the Strain Rate on Resistance to Deformation of Steel (K voprosu o vliyanií skorosti deformirovaniya na soprotivleniye deformatsii)

PERIODICAL: V sb.: Materialy Konferentsii po usoversh. tekhnol. obrabotki metallov davleniyem. Minsk, Belorussk. un-t, 1958, pp 79-87

ABSTRACT: Experimental investigations demonstrate that during upsetting operations carried out on specimens of steel 30 the resistance to deformation (RD) varies as a function of the ratio d/h . In the case of specimens in which $d/h < 1$, at strain rates ranging from 2 to 8 m/sec, the RD remains constant. Empirical formulae for the determination of stresses and evaluation of the RD during open-die forging in a drop hammer are proposed.

A. M.

Card 1/1

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 226 (USSR) SOV/137-59-1-1711

AUTHOR: Yushkov, A. V.

TITLE: Some Lubricating Coatings Employed in Forging Production
(Nekotoryye smazki, primenyayemyye v kuznechnom proizvodstve)

PERIODICAL: V sb.: Materialy Konferentsii po usoversh. tekhnol. obrabotki
metallov davleniyem Minsk, Belorussk. un-t, 1958, pp 107-112

ABSTRACT: Certain types of lubricating coatings (L) employed in hot stamping of metal are listed, general requirements that must be met by such L's are described, and conditions and fields of their application are outlined. A report on novel types of L's, glass, colloidal MoS₂, and non-combustible ethylene polymers (fluorocarbon plastics) is presented. It is pointed out that the problem of production and utilization of high-performance L's, which are essential to increased operating efficiency and durability of dies, is not given sufficient attention. This is particularly true of L's employed in stamping of steel forgings, a technology in which the durability of dies is still not sufficiently high.

Card 1/1

I. K.

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 170 (USSR) SOV/137-59-1-1252

AUTHORS: Yushkov, A. V., Kalachev, M. I.

TITLE: Changes in Mechanical Properties of Steel ShKh-15 as a Function of the Temperature (Izmeneniye mekhanicheskikh svoystv stali ShKh-15 v zavisimosti ot temperatury nagreva)

PERIODICAL: Sb. nauchn. tr. fiz.-tekhn. in-t AN BSSR, 1958, Nr 4, pp 89-94

ABSTRACT: Static mechanical properties (σ_b , b , and ψ) of ShKh-15 steel were determined, and its crippling strength under dynamic loading (σ_d) at temperatures ranging from 20 to 1200°C was established. The magnitude of the σ_d was determined by means of upsetting the specimens (30 mm high and 20 mm in diameter) under a drop hammer, the speed of the ram amounting to 6.25 m/sec, in accordance with the formula $\sigma_d = A / \epsilon V$, where A is the work done during the plastic deformation; ϵ the degree of deformation (a value of 10% was assumed), and V the volume of the specimen. It was established that at temperatures of 400°, 625°, 950°, and 1200°, σ_b amounted to 66 kg/mm², 28 kg/mm², 10 kg/mm², and 3 kg/mm², respectively, while σ_d amounted to 54, 54, 25, and 16 kg/mm², respectively. T. F.

Card 1/1

S/123/59/000/09/17/036
A002/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 9, p. 104,
33628

AUTHORS: Yushkov, A. V., Prosvirov, N. T.

TITLE: The Mechanical Properties of Some Die Steels After Heat Treatment

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1958, No. 4, pp. 95-104

TEXT: The authors investigated "5XHT" (5KhNT), "5XHB" (5KhNV), "7X3" (7Kh3) die steels after quench hardening from 850°C in oil and tempering at 350-700°C (at 50° intervals); "Y10" (U10) steel was also investigated. The mechanical properties in tensile and impact tests were determined at room and at tempering temperatures. The test for hot cracks (razgarnyye treshchiny) was performed by hammering (700 blows) a steel strip made of the steel under investigation, imitating a die. The highest heat resistance was found with 5KhNT steel. The greatest proneness to hot crack formation under thermomechanical effects was observed with U10 steel. The highest number of hot cracks in the steels under investigation were observed after tempering at 300°C.

✓B

Card 1/2

S/123/59/000/09/17/036
A002/A001

The Mechanical Properties of Some Die Steels After Heat Treatment

Hot cracks were not observed when tempering at 550°C (5KhNT steel) and at 650°C (5KhNV steel). There are 8 figures and 6 references.

F. M. A.

Translator's note: This is the full translation of the original Russian abstract.

✓B

Card 2/2

SOV/81-59-10-36498

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 449 (USSR)

AUTHOR: Yushkov, A.V.

TITLE: Some Lubricants Used in the Forging Industry

PERIODICAL: V sb.: Materialy Konferentsii po usoversh. tekhnol. obrabotki metallov pod davleniyem. Minsk, Belorusk. un-t, 1958, pp 107-112

ABSTRACT: The compositions of some dry, thick and liquid lubricants are cited and the application of new types of thermally and chemically stable lubricants (powder-like glass, glass fabric, borax, MoS_2 , fluoroplastics) in the hot punching and forging treatment of metals in the USSR and abroad are considered. There are 5 references.

G. Margolina

Card 1/1

S/137/60/660/010/017/040
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p. 126,
23455

AUTHORS: Severdenko, V.P., Prosvirov, N.T., Yushkov, A.V.

TITLE: The Effect of the Flare Groove Shape on the Wear Resistance of
Open Dies

PERIODICAL: Sb. nauchn. Fiz-tekhn. in-t, AN BSSR, 1959, No. 5, pp. 70 - 76

TEXT: An analysis is made of thermomechanical factors assuring the durability of dies. It is experimentally shown that in the existing shapes of the flare groove the bridge is subjected to high stresses and heating up to high temperatures. To raise the wear resistance of open swaging dies, a new V-shaped flare groove is recommended. The industrial use of dies with such a groove showed that their durability had increased by a factor of 1.5 - 2. ✓

M.Ts.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

YUSHKOV, A.V. (Cand. Tech.Sc.)

"Process of Drop Forging in Low-Burr Dies."

report presented at the 13th Scientific Technical Conference of the Kuybyshev Aviation Institute, March 1959.

8/123/61/000/003/011/023
A004/A104

AUTHOR: Yushkov, A. V.

TITLE: On the impact efficiency during the upsetting of steel blanks with different diameter-to-height ratios on vertical ram impact machines

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 3, 1961, 4, abstract 3V21 (Sb. nauchn. tr. fiz.-tekhn. in-t AN BSSR", no. 5, 1959, 90-93)

TEXT: The author describes the results of investigating the impact efficiency during the upsetting of steel specimens 30 mm in diameter (d) and 4-34 mm high (h) at different temperatures and impact energy on vertical ram impact machines. The impact efficiency is determined by the upsetting curve plotted by the kinematic method. The impact efficiency depends on the specimen dimension, and the greater $\frac{d}{h}$ the smaller is the impact efficiency. During the upsetting of blanks with $\frac{d}{h} < 1$ at different deformation temperatures and impact energy, the efficiency approximates 1. There are 4 figures, 1 table and 2 references.

S. Kolesnikov

[Abstractor's note: Complete translation]

Card 1/1

VORONCHIKHIN, V.G.; YUSHKOV, I.S.

Changing the design of the slag tank. Sbor. rats. predl.
vnedr. v proizv. no.2:58-59 '61. (MIRA 14:7)

1. Lipetskiy metallurgicheskiy zavod "Svobodnyy Sokol".
(Foundries—Equipment and supplies)

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YUSHKOV, M.P.

Boundary conditions of automatic control systems for turbocompressors
with long pipe conduits. Inzh.-fiz.zhur. no.7:84-90 JI '58.
(MIRA 11:8)

1. Gosudarstvennyy universitet, Leningrad.
(Automatic control) (Compressors)

YUSHKOV, V.P.; YUSHKOV, M.P.

[Kinematics of an absolutely solid body] Kinematika absolutno
tverdogo tela. Leningrad, Leningr. tekhnologicheskii in-t
kholodil'noi promyshl., 1960. 49 p. (MIRA 14:12)
(Kinematics)

39300

S/043/62/013/003/001/001
D409/D301

26-2120

AUTHOR: Yushkov, M.P.

TITLE: An approximate method of determining the principal critical speed of loaded whirling shafts

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, v. 13, no. 3, 1962, 99-102

TEXT: The method consists in replacing a shaft with 2 disks, by a shaft having only one disk, so that the critical speed of the equivalent system is equal to that of the original system. The characteristic equation for the critical speed of a shaft with 2 disks is derived. By assuming that the disk between the bearings is absent, one obtains from the characteristic equation

$$c^3(4 + 3c)\mu\delta^2 - 12(1 + 3c)\mu\delta + 12c^2(1 + c)\delta - 36 = 0 \quad (5)$$

where $c = l_3/l$ (l_3 denoting the distance between the remaining disk and one of the bearings, and l the distance between the

Card 1/3

S/043/62/013/003/001/001
D409/D301

An approximate method ...

bearings), $\mu = \rho^2/l^2$ (where ρ denotes the radius of gyration), $\delta = (3/\nu)$ (ν being related to the angular velocity of the shaft and the bending rigidity). An equivalent disk is considered, which is overhung on the shaft at a distance $l/3$ from the right bearing. The mass of this disk is equal to the sum of the masses of the original two disks. The problem consists in determining, from Eq. (5), the fitting-on point $c_e = l/3$. This can be done by solving the characteristic equation and by substituting the obtained solution in the transformed Eq. (5). Such a method is however cumbersome. In practice, it is more convenient to use the following grapho-analytic method. The characteristic equation is rewritten; a family of curves, depending on c , is constructed in the coordinate system (μ, δ) . The value of δ , corresponding to a given value of c , is directly determined from these curves. A second family of curves is constructed for the determination of c_e . The above method of replacing a system of 2 disks by a single one, yields accurate results. The method can be extended to the case of n concentrated masses located between the two bearings, and a single disk. The results thereby obtained are no longer exact, but approximate.

Card 2/3

An approximate method ...

S/043/62/013/003/001/001
D409/D301

Two examples are given, illustrating the above method. These examples show that the approximate methods of Dunkerley, Rayleigh, Stodola, etc., lead to considerable underestimates in the values of the critical speed (these methods do not take into account the gyroscopic effect). The author proposes a modification to Dunkerley's formula so as to make allowance for this effect. On the other hand, the above method of the equivalent disk yields slightly overrated values. By repeated experiment it was found that in practice the approximate formula for the critical speed:

$$k \approx 0.2k_D^* + 0.8k_e \quad (18)$$

is satisfactory (k_D^* denoting the value according to Dunkerley's formula, and k_e the value according to the formula of the equivalent-disk method).

SUBMITTED: February 15, 1961

Card 3/3

YUSHKOV, M.P.

Approximate method for determining the basic critical angular
velocity of loaded weighable shafts. Vest. LGU 17 no.13:99-
102 '62.

(MIRA 15:7)

(Rotating bodies)

YUSHKOV, M.P.

A transcendental equation encountered in problems of mathematical physics. Inzh.-fiz. zhur. 5 no.7:94-96 J1 '62. (MIRA 15:7)

1. Gosudarstvennyy universitet imeni A.A.Zhdanova, Leningrad.
(Differential equations)

YUSHKOV, M.P., izn.

Concerning a certain method for determining the main critical
angular velocity of the rotors of turbomachines. Izv.vys.uchet.
zav;energ. 6 no.1:64-69 Ja '63. (MIRA 16:2)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.
Predstavlena kafedroy teoreticheskoy mekhaniki.
(Turbomachines)

25

YUSHKOV, N. A.

64

A colorimetric method for the determination of Sulfur Black. N. A. Yushkov, *Khlopchikobumashkaya Prom.* 6, No. 3, 24-6(1936); *Chem. Zvest.* 1936, 1, 1731. A soln. contg. 10 g. Sulfur Black and 5 g. 62% NaOH per l. is used as a standard of comparison. The content of the paste in dyestuffs is previously detd. by the oxidation method. Twenty-five cc. of the soln. (0.4 g. tech. dyestuff per l.) is added to 50 cc. of water and 1 cc. 1% H_2O_2 and after 20-30 min. the soln. is examd. in the colorimeter. Comparison can also be made against a soln. of azo dyes of the corresponding color; e. g., 0.35 g. Acid Pure Blue FF + 0.4 g. Acid Brown M + 0.7 g. Aridino Deep Green 2B (Russian nomenclature) + 3 g. soda per l. In the routine analyses of dye baths it is recommended that in addn. to the NaOH also 0.1-0.5 cc. 1% soln. of sulfite be added to the dye soln. The presence of NaCl and Na_2SO_4 does not interfere with the analysis. Poly-sulfides lower the results. NaOH interferes only when present in concns. greater than 10 g./l. W. A. Moore

ASD-SEA METALLURGICAL LITERATURE CLASSIFICATION

YUSHKOV, N. A.

PROCESSES AND PATENTABLE INVENTS

Dyeing of yarn in the Brandwood apparatus. N. A. Yushkov, N. A. Yushkov and N. A. Shubina. Byd. Izv. N. A. Yushkov. Tekh. Izobret. Inst. 1918, No. 45, 1000; Khim. Referat. Zhur. 2, No. 4, 1245 (1919). To correct unevenness in dyeing, the following changes in the process were introduced. (1) For dyeing, a condensate of water which formed a ppt. on the surface of the bobbin, water which formed a ppt. on the surface of the bobbin, (2) The mother liquors of the dyes were allowed to stand for 24 hrs. to sep. the mech. admixts. (3) The method of wetting was simplified. (4) A method was developed for the prepn. of the mother liquor in the dyeing bath. To reduce the concn. of the dyeing bath an electrolyte (NaCl, from 200 to 400%) was added which gave a 25-50% saving of the dye. (5) The max. temp. for each color was fixed.

W. R. Hinn

ASR-35.4 METALLURGICAL LITERATURE CLASSIFICATION

GENERAL INDEX

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RESEARCH ONE OWN USE

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<p>Determination of alkalies in a sulfide bath. N. A. Yushkov. <i>Khlopchakobuvashaya Prom.</i> 10, No. 6, 28-30 (1940); <i>Chem. Zentr.</i> 1941, 1, 1223.—Transfer into a 200-ml. measuring flask 50 ml. of 0.2 M $ZnSO_4$, 10.0 ml. of the unknown (sulfide bath soln.), and 25 ml. of 0.1 N citric acid. Shake well, fill to the mark with dist. H_2O and filter through a dry filter. Titrate a 50-ml. aliquot of the filtrate to det. alkalies. If Na_2CO_3 is suspected, pass CO_2-free air for 30 min. through a 50-ml. aliquot of the filtrate with the aid of a water pump. The air should be washed in 2 bottles contg. a 15-20% soln. of $NaOH$. Ppt. the $ZnSO_4$ in the soln. with 5-10 ml. of 10% $K_4Fe(CN)_6$. Titrate the excess of citric acid with 0.1 N $NaOH$ in the presence of phenolphthalein as indicator. If the bath contains little or no Na_2CO_3, 0.1 N $AcOH$ can be used instead of citric acid, and the blowing of air through the filtrate can then be eliminated. M. Hirsch</p>																																																																																																																																																																																																											
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YUSHKOV, N. A.

Dyes and Dyeing - Cotton

Three-vat method of dyeing cotton in continuous operation. Tekst. prom., 12, No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

YUSHKOV, N. H.

USSR /Chemical Technology. Chemical Products
and Their Application

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Dyeing and chemical treatment of textiles

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32200

Author : Yushkov N.A., Siadkopevtseva G. Ye., Shubina N.A.,
Shumarina A.V.

Title : Decreasing the Expenditure of Sodium Sulfide in
Dyeing Cotton.

Orig Pub: Tekstil'naya prom-st', 1956, No 7, 37-39

Abstract: The formulas for dyeing cotton with sulfur dyes
(D) have been revised in order to decrease the
expenditure of D and Na_2S . The optimal amounts
of Na_2S have been determined for dyeing with
Sulfur Black, Brown Zh, Blue Z and their mixtures,

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in continuous operation apparatus and centrifugal apparatus, under conditions approximating the full-scale operations. It was found that the dosage of Na_2S is determined by its concentration (in g/liter) in the dye bath. This concentration is apparently about the same with the different D and amounts to approximately 4-6 g/liter of 100% Na_2S . It does not depend on the concentration of the D, within the range of the usual concentrations of industrial dye baths (10-20 g/liter). The alkali content, with a concentration of Na_2S of 4-5 g/liter, must be not less than 2 g/liter NaOH (100%). For

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continuous dyeing apparatus it is not expedient to use NaCl with a content of thiosulfates, in the dye bath, amounting to 25-30 g/liter. The new formulas increase exhaustion of the D, decrease its losses during rinsing and, consequently, result in large savings (about 30%) of D and Na₂S.

Card 3/3

KOPERIN, Vladislav Vladimirovich; YUSEKOV, Nikolay Ivanovich; NAUMOV, Vasil'y Grigor'yevich; TUROVSKIY, Petr Borisovich: Prinimal uchast'ye FEL'DMAN, A.K., inzh. KORELIN, D.S., red.; MIKHAYLOVA, L.G., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Manual on the assembly of technological equipment in the enterprises of the pulp and paper industry] Spravochnik po montazhu tekhnologicheskogo oborudovaniia predpriatii tselliulozno-bumazhnoi promyshlennosti. Moskva, Goslesbunizdat, 1960. 259 p. (MIRA 14:4)

1. Treest Soyuzprombunmontazh (for Fel'dman).
(Paper industry--Equipment and supplies)

YUSHKOV, N.I., kand.tekhn.nauk

From the first patent to the latest discoveries. Sam.
prom. 35 no.7:28-29 Je '60. (MIRA 13:8)
(Paper industry)

YUSEKOV, H. I., kand.tekhn.nauk

From the history of the paper industry. Bum.prom. 35 no.8:28-29
Ag '60. (MIRA 13:8)

(Paper industry)

YUSHKOV, Nikolay Ivanovich; NAUMOV, Vasilii Grigor'yevich; TUROVSKIY,
Petr Borisovich; ZHUDRO, S.G., red.; YEPISHKINA, A.V., red.
izd-va; SHIBKOVA, R.S., tekhn. red.

[Assembly and installation of technological equipment in
enterprises of the woodpulp and paper industry] Montazh tekhnologicheskogo oborudovaniia predpriatii tselliulozno-bumazhnoi promyshlennosti. Moskva, Goslesbumizdat, 1962. 319 p.
(MIRA 16:2)

(Woodpulp industry—Equipment and supplies)

KOPERIN, Vladislav Vladimirovich; YUSHKOV, Nikolay Ivanovich;
NAUMOV, Vasilii Grigor'yevich; TUROVSKIY, Petr Borisovich
[deceased]; KORELIN, D.S., red.

[Handbook on the assembly and installation of the technological equipment in enterprises of the woodpulp and paper industry] Spravochnik po montazhu tekhnologicheskogo oborudovaniia predpriatii tselliulozno-bumazhnoi promyshlennosti. Izd.2., perer. i dop. Moskva, Lesnaya promyshlennost', 1964. 758 p. (MIRA 17:9)

YUSHEV, Nikolay Ilyich, kand. tekhn. nauk; NAUMOV, Vasil'y Grigor'evich;
FEL'DMAN, Akim Konstantinovich; GOLOVKO, Ye.M., red.

[Repair of the technological equipment of woodpulp and paper
enterprises] Remont tekhnologicheskogo oborudovaniya tsel-
lulozno-bumazhnykh predpriyatii. Moskva, Lesnaya promysh-
lennost', 1965. 120 p. (MIRA 18:9)

YUSHKOV, N.I., kand.tekhn.nauk

Develop the creative initiative of the organizations of the technical and scientific societies. Bum.prom. 37 no.6:22 Je '62.

(MIRA 15:6)

1. Predsedatel' Leningradskogo oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva bumazhnoy i derevoobrabatyvayushchey promyshlennosti.

(Wood-using industries--Societies, etc.)

IGUMNOV, A.K., kandidat meditsinskikh nauk; YUSHKOV, N.P., starshyy ordinator

The ability of furuncle staphylococci to coagulate blood plasma.

Vest.ven. i derm. 30 no.2:46 Mr-Ap '56.

(MIRA 9:7)

(STAPHYLOCOCCUS)

(BLOOD--COAGULATION)

IQUMNOV, A.K.; YUSHKOV, N.P. (Ohita)

Case of yellow chromhidrosis. Vest.ven. i derm. 30 no.4:57 J1-Ag '56.
(LIVER--DISEASES) (MLRA 9:10)
(PERSPIRATION)

TIMOFEEV, M.N.; YUSHKOV, N.S.

Improving the AB-400 drill for boring frozen ground. Kats. 1 izobr.
predl. v stroi. no.7:35-36 158. (MIRA 11:12)
(Boring machinery) (Frozen ground)

POPOV, V.A., assistant; SOLOPOVA, K.Ye., assistant; YUSHKOV, P., kand.fiz.-
matem.nauk, prof.

Determining natural frequencies of a shaft with a disk. Izv.vys.
ucheb.zav.; mashinostr. no.6:71-77 '62. (MIRA 15:11)

1. Leningradskiy tekhnologicheskoy institut kholodil'noy
promyshlennosti.

(Shafting—Vibration)

YUSHKOV, P.D.

Disinfection in fungous diseases. Vest.ven.i derm. no.5:52 8-0 '53.
(MLBA 6:12)

1. Iz Chelyabinskogo gorodskogo vendispansera.

(Medical mycology)

YUSHKOV, P.D.

[Volodia Uralov has got into trouble] Volodia Uralov popal v bedu.
Moskva, Medgiz, 1955. 22 p. (MLGA 8:11)
(CHILDREN--DISEASES)

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New forms of health education in fungous diseases. Vest.derm.
i ven. 34 no.6:36-37 '60. (MIRA 13:12)

1. Iz Chelyabinskogo gorodskogo kozhno-venerologicheskogo dis-
pensera (glavnyy vrach M.N. Sverdlova) i kafedry kozhnykh
bolezney (zav. - dotsent K.P. Kochetov) Chelyabinskogo meditsin-
skogo instituta.

(MEDICAL MYCOLOGY)

MAKHONINA, G.I.; YUSHKOV, P.I.; VOLKOVA, M.Ya.; TIMOFEYEV-RESOVSKIY, N.V.

Distribution of Sr^{90} and Ru^{106} in the basic organs of pine. Dokl.
AN SSSR 151 no.6:1456-1457 Ag '63. (MIRA 16:10)

1. Institut biologii Ural'skogo filiala AN SSSR. Predstavleno
akademikom V.N.Sukachevym.

YUSHKOV, P.I.

Distribution of the products of photosynthesis in pines.
Trudy Inst. biol. UFAN SSSR no. 43:17-23 '65

(MIRA 19:1)

Carbon nutrition of the growing branches of young pines.
Ibid.:25-32.

Growth characteristics of pine and birch in water-logged
forests of the Loz'va-Pelya interfluve. Ibid.:53-58

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YUSHEOV, P.K., dotsent

Increasing the operational reliability of traction power supply systems
on railroad main lines. Trudy TELIZHT 25:326-336 '58. (MIRA 13:10)
(Electric railroads--Substations)

YUSHKOV, P.K.

Methods for constructing duration graphs for calculating electric
traction loads. Trudy TEIIZHT 35:96-101 '62. (MIRA 16:8)
(Electric railroads--Current supply)

YUSHKOV, P. K., dotsent; MYL'NIKOV, L. L., inzh.

Analytical methods for constructing a load duration chart of a
traction substation. Trudy OMIIT 37:128-137 '62. (MIRA 17:5)

YUSHKOV, P.K.

Load duration chart of an electric railroad sector. Trudy OMIIT
41:37-45 '63.

Selecting the number of points of the parallel connection of
wires on double-track electric railroad sections. Ibid.:42-53
(MIRA 18:7)

BESKOV, B.A.; GERONIMUS, B.Ye.; DAVYDOV, V.N.; KREST'YANOV, M.Ye.;
MARKVARDT, G.G.; MININ, G.A.; Prinsipal uchastnye TAMAZOV,
A.I.; VAYNBLAT, E.G., inzh., retsenzent; KRUGLYAKOV, F.Ye.,
inzh., retsenzent; KUCHMA, K.G., kand. tekhn.nauk,
retsenzent; LOMAZOV, D.V., kand. tekhn. nauk, retsenzent;
SLUTSKIY, Z.M., inzh., retsenzent; FRADKIN, I.S., inzh.,
retsenzent; YUSHKOV, P.K., inzh., retsenzent; PERTSOVSKIY,
L.M., inzh., red.; USENKO, L.A., tekhn. red.

[Design of electric railroad power supply systems] Proektiro-
vanie sistem energosnabzheniya elektricheskikh zheleznykh do-
rog. [By] B.A.Beskov i dr. Moskva, Transzheldorizdat, 1963.
470 p. (MIRA 17:2)

Yushkov, P. P.

Yushkov, P. P. On the application of triangular nets to the numerical integration of the equation of heat conduction.

Izv. Akad. Nauk SSSR Tekhn. Fiz., 2: 221-226, 1948.

10 p.

Equations of heat conduction are solved in the form of finite differences on a triangular net. The case $\text{div} \text{grad } T = 0$ is considered.

For the triangular net the following is obtained:

where T_i is the temperature at the vertices of a regular hexagon inscribed in the xy plane and T_0 is the temperature at the center of the hexagon. For the case $\text{div} \text{grad } T = 0$ the following is obtained:

$$T_0 = \frac{1}{6} (T_1 + T_2 + T_3 + T_4 + T_5 + T_6)$$

On the basis of this result a numerical method is proposed for the solution of the problem of heat conduction in a body with a boundary of arbitrary shape. The method is applied to the case of a rectangular body with a semi-circular hole. A numerical solution is obtained for the case of a rectangular body with a semi-circular hole.

Yulikov, B. P. The practical harmonic analysis of empirical functions when the given curve is replaced by another approximating the given one in contour. Akad. Nauk SSSR. Inzheneri i Stroyeniye 5, 1971, 211, 1970. (Russian)

The author proposes various procedures for the approximate determination of the coefficients in the Fourier series for a given function. A typical procedure is to divide the interval $(0, 2\pi)$ into n equal parts, to select by a sequence of parabolas joined at the division points x_k and compute the Fourier coefficients of the new function. To carry this out numerically, one first computes the coefficients usually found in practical harmonic analysis,

$$a_n = \frac{2}{n} \sum_{k=1}^{n-1} f(x_k) \cos \frac{2\pi n k}{n}$$

$$b_n = \frac{2}{n} \sum_{k=1}^{n-1} f(x_k) \sin \frac{2\pi n k}{n}$$

and then gets the desired coefficients A_n and B_n by using correction factors c_n and d_n (see Table 1). These correction factors can be computed for all values of n and for several different values of n . The author

English

1971, 211, 1970

1971, 211, 1970

Yuskov, P. F. On the correction of the coefficients obtained in the usual practical harmonic analysis. Akad. Nauk SSSR. *Izvestiya i Sbornik* 10, 213-222 (1951) (Russian).

In an earlier paper [same Sbornik 6, 197-210 (1950); *Case Rev.* 13, 243] the author obtained approximations a_n and b_n to the Fourier coefficients A_n and B_n for a function $f(x)$ by means of the formula

$$a_n = \alpha_n A_n, \quad b_n = \beta_n B_n,$$

in which α_n and β_n are the coefficients found by the usual process of harmonic analysis with n subdivisions of the period. In the present paper the idea is extended so as to express a_n as a linear combination of α 's and b_n as a linear combination of β 's. Typical formulas are

$$a_1 = 1.00000a_1 - 0.06345a_2 - 0.10401a_3,$$

$$b_1 = 0.99999b_1 + 0.06345b_2 + 0.10401b_3, \text{ etc.}$$

Tables of the coefficients are supplied for four different cases. W. B. Atine (Corvallis, Ore.)

YUSHKOV, P.P., kand.fiz.-mat.nauk, dots.

Studying the question of the applicability of Simpson's
formula to problems in practical harmonic analysis. Trudy LTIKHP
6:51-56 '54. (MIRA 11:5)

(Harmonic analysis)

YUSHKOV, P. P.

"On Improving the Convergence of Series Arising in Precision Harmonic Analysis,"
 Izvestiya Sb, Vol 19, 1954, pp 171-178

The author studies a continuous function $y = f(x)$ with period 2π , whose graph passes through the points $M_k(x_k, y_k)$, where $x_k = 2\pi k/n$, $y_k = f(2\pi k/n)$ ($k = 0, 1, 2, \dots, n$), and which can be expanded in a Fourier series with coefficients A_0, A_m , and B_m ($m = 1, 2, \dots$). The author uses the method of substituting a broken line or family of second and third degree parabolas for the true curve which the function represents. (RZhMat, No 7, 1955)
 SO: Sum.No. 713, 9 Nov 55